

(x) This notice recites the following citations (the citation numbers are used also in the future examinations)

No.	citation no. or name	publication date (or conflicting application filing date)
1	CN1511327A	5/10/2002
2	JP2001-110680A	4/20/2001
3	US3415687A	12/10/1968
4	JP2000-173864A	6/23/2000
5	CN1225495A	8/11/1999

Main text of Opinion after First Examination

Application No.: 200380102909.8

This application relates to “an electrolytic capacitor.” Opinion after the examination will be given hereafter.

1. The proposed technique claimed in Claim 1 fails to have the novelty stipulated in the Patent Law Article 22 (2). Citation 1 (CN1511327A) is a patent application filed to the Patent Office by a third party, filed on March 10, 2002, which is before the filing date of this application, November 8, 2002, and published on July 7, 2004, which is after the filing date of this application.

Claim 1 claims “an electrolytic capacitor.” Citation 1 (CN1511327A) discloses “an aluminum electrolytic capacitor” and the following technical features: “the electrolytic capacitor has an element consisting of a positive electrode foil and a negative electrode foil that are wounded via a separator plate (namely a capacitor element), the separator plate of the constituted capacitor element is impregnated with an electrolyte, part or all of the anions of the electrolyte are aluminum tetrafluoride ions (namely the electrolyte contains aluminum tetrafluoride salt), the capacitor element with the separator plate impregnated with the electrolyte is housed in a closed-end cylindrical aluminum housing (corresponding to the outer case of Claim 1), a butyl rubber sealing member is inserted in the open end of the housing, the end is further processed to form a closed-entry for the electrolytic capacitor, and the separator plate (corresponding to the separator of Claim 1) can be made of a non-woven fabric such as polypropylene (corresponding to the heat-resistant synthetic resin of Claim 1)” (see the specification, page 3, lines 18-23; page 11, lines 1-28; and Figs. 1 and 2). As recited above, Citation 1 discloses all technical features of Claim 1. They have substantially the same proposed technique. A person of ordinary skill in the field can confirm that they belong to the same technical field, resolve the same technical problem, and have the same technical effect based on their proposed technique. Hence, Citation 1 is “a conflicting application” of Claim 1 of this application and the proposed technique claimed in Claim 1 fails to have the novelty.

2. Citation 2 claims “an electrolytic capacitor.” Citation 2 (JP2001-110680A) discloses “an electrolytic capacitor” and the following technical features: “the electrolytic capacitor has a capacitor element 9 formed by winding a positive electrode foil 1, a negative electrode foil 2, and a separator 3 provided between them, the capacitor element 9 is impregnated with an electrolyte (a solution of vinylethylene glycol in fatty acid), the capacitor element 9 is housed in an aluminum outer case 8, the opening of the case 8 is sealed with butyl rubber to form a sealing member 7, and the separator 3 is made of polyethylene terephthalate (a type of heat-resistant synthetic resin)” (see the specification, paragraphs 15-20 and Fig.1). The distinctions between Claim 2 and Citation 2 are: “(i) the electrolyte contains aluminum tetrafluoride salt and (ii) the separator is made of mixed-fiber paper containing glass fiber.” The technical problem Claim 2 intends to resolve based on these distinctive technical features is “to provide an electrolytic capacitor having a low impedance property.”

However, Citation 3 (US3415687A) discloses “an electrolyte containing aluminum tetrafluoride salt” (see the specification, column 2, lines 51-57). Citation 4 (JP2000-173864A) discloses “a wounded-type electrolytic capacitor” and a technical feature “the separator between the positive and negative electrode foils is made of a mixed-fiber paper containing glass fiber and paper” (see the specification, paragraph 5). As recited above, the distinctive technical features (i) and (ii) are disclosed in Citations 3 and 4, respectively, and their effects in Citations 3 and 4 are the same as in Claim 2. In other words, Citations 3 and 4 give a suggestion to apply the distinctive technical features (i) and (ii) to Citation 2 to resolve the technical problem. It is obvious to a person of ordinary skill in the field to combine Citations 3 and 4 based on Citation 2 to achieve the proposed technique of Claim 2. Hence, Claim 2 fails to have any outstanding substantial features and apparent inventive step and meet the provision regarding the creativity stipulated in the Patent Law Article 22 (3).

3. Claim 3 provides an additional technical feature based on Claim 1 or 2 while Citation 1 (CN1511327A) further recites that “the positive electrode foil of the electrolytic capacitor is formed by chemical treating a 99.9 % pure aluminum foil with an aqueous solution of phosphoric acid” (see the specification, page 11, lines 1-4). As recited above, this additional technical feature is already disclosed in Citation 1. Hence, when Claim 1 fails to have the novelty, Claim 3 fails to have the novelty and meet the provision of the Patent Law Article 22 (2).

Reciting Claim 2, Claim 3 provides an additional technical feature “the positive or negative electrode foil is made of an electrode foil treated with phosphoric acid” based on Claim 2. However, conventionally, the positive electrode foil is etched in an acidic solution to create a rough surface and oxidized to form an electrolytic film of an oxide of the positive electrode before the electrode foil is wounded. The phosphoric acid is a conventional acidic solution in this process. Therefore, this additional technical feature is a conventional and known technical means in the field. Hence, when Claim 2 recited fails to have the creativity, Claim 3 fails to have any outstanding substantial feature and apparent inventive step and

meet the provision regarding the creativity of the Patent Law, Article 22 (3).

4. Claim 4 defines the composition of the sealing member based on Claim 1 or 2. Claim 4 reciting Claim 1, the distinctive technical features between Claim 4 and Citation 2 are: (i) the electrolyte contains aluminum tetrafluoride salt and (ii) the sealing member is made of butyl rubber partly cross-linked by peroxide formed by adding peroxide as crosslinker to a butyl rubber polymer consisting of a copolymer of isobutylene, isoprene, and divinylbenzene.” The technical problem Claim 2 intends to resolve based on these distinctive technical features is “to provide an electrolytic capacitor having a low impedance property and high pressure-resistance property.”

However, Citation 3 (US3415687A) discloses “an electrolytic capacitor containing aluminum tetrafluoride salt” (see the specification, column 2, lines 51-57). Citation 5 (CN1225495A) discloses “a wounded-type electrolytic capacitor” and technical features “the opening of a metal case 8 housing a capacitor element 12 is sealed by a sealing material 7 to form a sealing member and the sealing material 7 is an elastic substance formed by adding peroxide and alkylphenol formaldehyde resin to a butyl rubber polymer consisting of a copolymer of isobutylene, isoprene, and divinylbenzene (corresponding to the cross-linked butyl rubber of Claim 4)” (see the specification, page 8, lines 21-25 and Fig.1a). As recited above, the distinctive technical features (i) and (ii) are disclosed in Citations 3 and 5, respectively, and their effects in Citations 3 and 5 are the same as in Claim 4. In other words, Citations 3 and 5 give a suggestion to apply the distinctive technical features (i) and (ii) to Citation 2 to resolve the technical problem. It is obvious to a person of ordinary skill in the field to combine Citations 3 and 5 based on Citation 2 to achieve the proposed technique of Claim 4. Hence, Claim 4 fails to have any outstanding substantial features and apparent inventive step and meet the provision regarding the creativity in the Patent Law Article 22 (3).

Reciting Claim 2, Claim 4 provides an additional technical feature based on Claim 2. The additional technical feature is already disclosed in Citation 5 (CN1225495A). The effect of this feature in Citation 5 is the same as in Claim 4. Hence, when Claim 2 fails to have the creativity, Claim 4 fails to have the creativity and meet the provision of the Patent Law Article 22 (3).

For the above reasons, neither the independent claims nor the dependent claims of this application have the novelty or creativity and the specification fails to describe any substantial matters for which a patent may be granted. Therefore, even if the applicant reorganizes the claims and/or further limits the matters described in the specification, this application is unlikely to be allowable. This application will be rejected unless the applicant provides sufficient grounds for this application having the creativity by the due date for reply specified in this notice.

Examiner: (Chinese name)